

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. (Canceled)
2. (Currently Amended) ~~[[A]]~~ The method according to ~~claim 4~~ claim 26, wherein said hosts comprise all hosts connected to said access network.
3. (Currently Amended) ~~[[A]]~~ The method according to ~~claim 4~~ claim 26, further comprising, defining in the switches, one asymmetric uplink VLAN ~~being asymmetric and~~ for carrying uplink traffic from said ~~[[.]]~~ hosts to the access router, said uplink VLAN being common to said hosts connected to the access network.
4. (Currently Amended) ~~[[A]]~~ The method according to ~~claim 4~~ claim 26, further comprising, defining in the switches in the fixed access network, one uplink VLAN for each of said hosts or for each of one or more groups of said hosts, said uplink VLANs ~~being used~~ for carrying only uplink traffic from said hosts to the access router.
5. (Currently Amended) ~~[[A]]~~ The method according to ~~claim 4~~ claim 26, further comprising, ~~defining:~~
configuring in the switches in a fixed access network, one uplink VLAN for each of said hosts or for each of one or more groups of said hosts, said uplink VLANs ~~being used~~ for carrying uplink traffic from said hosts to the access router; and
~~further defining said~~ configuring the uplink VLANs to also ~~transfer~~ carry downlink unicast traffic from the access router to the hosts.
6. (Currently Amended) ~~[[A]]~~ The method according to ~~claim 4~~ claim 26, further comprising, defining in the switches in a WLAN access network, one uplink

VLAN for each Access Point (AP) or for each of one or more groups of APs, said uplink VLANs ~~being used for~~ carrying uplink traffic from the APs and the hosts connected to the APs to the access router.

7. (Currently Amended) ~~[[A]]~~ The method according to claim 6, further comprising, configuring Access Points in a WLAN to prevent hosts connected to the same AP from communicating directly with each other through the AP by extending the downlink VLAN and the uplink VLAN to incorporate the AP or by ~~utilising~~ utilizing the inherent configuration abilities of the AP.

8. (Currently Amended) ~~[[A]]~~ The method according to claim 7, further comprising~~[[,]]~~:

providing in the switches, VLAN tags for the frames sent from the hosts to the access router ~~with VLAN tags~~; and

configuring the access router to be VLAN aware.

9. (Currently Amended) ~~[[A]]~~ The method according to ~~claim 4~~ claim 26, further comprising, configuring the VLANs as shared VLANs.

10. (Currently Amended) ~~[[A]]~~ The method according to ~~claim 4~~ claim 26, further comprising, retrieving by the access router, address mapping information for the hosts during the user authentication procedure.

11. (Currently Amended) ~~[[A]]~~ The method according to ~~claim 4~~ claim 26, further comprising, retrieving~~[[,]]~~ by the access router, address mapping information for the hosts during the IP allocation procedure.

12. (Currently Amended) ~~[[A]]~~ The method according to ~~claim 4~~ claim 26, further comprising, providing more than one access router in the access network, the VLANs being configured such that the access routers belong to the same VLANs.

13. (Canceled)

14. (Currently Amended) ~~An arrangement~~ The system according to ~~claim 13~~ claim 27, wherein said hosts comprise all hosts connected to the access network.

15. (Currently Amended) ~~An arrangement~~ The system according to ~~claim 13~~ claim 27, wherein the ~~switches are configured to define~~ at least one switch includes means for configuring one ~~asymmetric~~ asymmetric uplink VLAN ~~being asymmetric and for~~ carrying uplink traffic from the hosts to the access router, said uplink VLAN being common to said hosts.

16. (Currently Amended) ~~An arrangement~~ The system according to ~~claim 13~~ claim 27, wherein the ~~switches~~ at least one switch is in a fixed access network, ~~and includes means for configuring~~ are configured to define one uplink VLAN for each of said hosts or for each of one or more groups of said hosts, said uplink VLANs being asymmetric and used for carrying uplink traffic from said hosts to the access router.

17. (Currently Amended) ~~An arrangement~~ The system according to ~~claim 13~~ claim 27, wherein the ~~switches~~ at least one switch is in a fixed access network, ~~and includes means for configuring~~ are configured to define one uplink VLAN for each of said hosts or for each of one or more groups of said hosts, said uplink VLANs ~~being used for~~ carrying uplink traffic from said hosts to the access router and for carrying downlink unicast traffic from the access router to the hosts.

18. (Currently Amended) ~~An arrangement~~ The system according to ~~claim 13~~ claim 27, wherein the ~~switches~~ at least one switch is in a WLAN access network, ~~and includes means for configuring~~ are configured to define one uplink VLAN for each Access Point, ~~AP,~~ (AP) or for each of one or more groups of APs, said uplink VLANs ~~being used for~~ carrying uplink traffic from the APs to the access router.

19. (Currently Amended) ~~An arrangement~~ The system according to claim 18, wherein the access router is ~~configured to be~~ VLAN aware, and ~~in that the switches are adapted to provide~~ the at least one switch includes means for providing VLAN tags for the frames sent from the hosts to the access router with ~~VLAN tags.~~

20. (Currently Amended) ~~An arrangement~~ The system according to claim 13 ~~claim 27~~, wherein the ~~switches are adapted to configure~~ at least one switch includes means for configuring the VLANs as shared VLANs.

21. (Currently Amended) ~~An arrangement~~ The system according to claim 13 ~~claim 27~~, wherein the access router is ~~adapted to retrieve~~ includes means for retrieving address mapping information for the hosts during ~~[[the]]~~ a user authentication procedure.

22. (Currently Amended) ~~An arrangement~~ The system according to claim 13 ~~claim 27~~, wherein the access router is ~~adapted to retrieve~~ includes means for retrieving address mapping information for the hosts during ~~[[the]]~~ an IP allocation procedure.

23. (Currently Amended) ~~An arrangement~~ The system according to claim 13 ~~claim 27~~, wherein more than one access router is provided in the system, ~~the VLANs being configured in the switches~~ and the at least one switch includes means for configuring the VLANs such that the access routers belong to the same VLANs.

24-25. (Canceled)

26. (New) A method in an access network for forcing hosts connected to the access network to communicate through the access network rather than directly with each other, said access network comprising an access router and one or more switches, wherein the hosts are in communication contact with the access router via the switches, said method comprising the steps of:

configuring Virtual Local Area Networks (VLANs) in the switches;

defining in the switches, one asymmetric downlink VLAN, said downlink VLAN for carrying downlink traffic from the access router to the hosts, said downlink VLAN being common to all of the hosts connected to the access network;

configuring the VLANs such that the hosts connected to the access network belong to the same IP subnet; and

forcing the switches to route traffic from the hosts through the access network, said forcing step comprising:

the VLANs forcing the switches to route uplink traffic from the hosts to the access router;

configuring the access router as an Address Resolution Protocol (ARP) proxy; and

performing intra-subnet routing of the traffic, thereby forcing the switches to route traffic from the hosts through the access router and the access network.

27. (New) A system for forcing a plurality of hosts connected to an access network to communicate with each other through the access network rather than directly with each other, said system comprising:

an access router for providing the hosts with access to the access network; and
at least one intermediate switch connected between the hosts and the access router, said at least one switch comprising:

means for configuring Virtual Local Area Networks (VLANs), wherein the means for configuring VLANs includes:

means for configuring one of the VLANs as an asymmetric downlink VLAN for carrying downlink traffic from the access router to the hosts, wherein the downlink VLAN is common to all of the hosts connected to the access network; and

means for configuring the VLANs such that all of the hosts belong to the same IP subnet;

means for configuring the access router to perform as an Address Resolution Protocol proxy; and

means for performing intra-subnet routing, thereby forcing the at least one switch to route traffic from the hosts through the access router and the access network.